

RECEIVED

MAY 04 2000

**THORPE,  
NORTH &  
WESTERN L.L.P.**  
SINCE 1979  
THE TEAM APPROACH TO PREMIER PERFORMANCE

INTELLECTUAL PROPERTY LAW  
PATENTS, TRADEMARKS,  
COPYRIGHTS, UNFAIR  
COMPETITION AND  
RELATED MATTERS



**SALT LAKE AREA OFFICE**  
8180 SOUTH 700 EAST, SUITE 200  
SANDY, UTAH 84070-0562  
801.566.6633  
801.566.0750 FAX  
PATLAW@TNW.COM  
WWW.TNW.COM

**LAS VEGAS AREA OFFICE**  
OF COUNSEL: NEIL J. BELLER †  
2345 REDROCK STREET, SUITE 310  
LAS VEGAS, NEVADA 89012  
702.368.7767  
† ADMITTED IN NEVADA

Group 2700

VAUGHN W. NORTH\*  
MICHAEL W. STARKWEATHER\*  
CLIFTON W. THOMPSON\*  
GARRON M. HOBSON\*  
PETER M. DE JONGE  
WEILI CHENG, PHD.\*  
DAVID R. MCKINNEY, PE.\*  
STEVE M. PERRY\*  
GARY P. OAKESON\*  
DAVID W. OSBORNE\*  
CALVIN E. THORPE  
(1939-1999)

\*REGISTERED PATENT ATTORNEYS  
M. NED BRINER,  
EXECUTIVE DIRECTOR

**PATENT APPLICATION**  
Docket No.: T4855.CIP

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT:**  
**BEFORE PAYMENT OF ISSUE FEE**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is an Information Disclosure Statement.

Enclosed also are the following designated documents, as required under 37 C.F.R. §§ 1.97 and 1.98:

- ☒ Form PTO-1449 list of 18 references submitted for consideration.
- ☒ Legible copies of the listed references or their relevant portions.
- ☐ All English translations of each non-english reference, if any, within the possession, custody, control or availability of anyone designated in 37 C.F.R. § 1.56(c) (see 37 C.F.R. § 1.98(c)).

The following are included within the Information Disclosure Statement if applicable and as required under 37 C.F.R. § 1.98:

- ☐ Concise explanation of relevance of each reference not in English and unaccompanied by an English translation.

April 26, 2000

Page 2

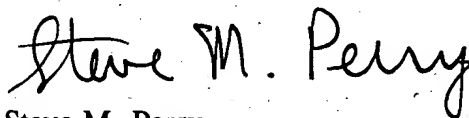
- Statement that certain listed references not enclosed are substantially cumulative of an enclosed reference.
- Statement that certain listed references not enclosed were previously cited by or submitted to the Office in the identified prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

In order to secure consideration of the items designated above, one or more of the following, if required, is also enclosed:

- Promptness Certification.
- Check No. \_\_\_\_\_ in the amount of \$ (amount in § 1.17(p)) constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- Petition for Consideration and Check No. \_\_\_\_\_ in the amount of \$(amount in § 1.17(i)(1)) constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).
- In the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that the Promptness Certification meets the requirements of 37 C.F.R. § 1.97(e), or in any other event remediable by a fee, please credit any over payment or charge any additional fees to Deposit Account No. 20-0100 of the undersigned.

Dated this 26 day of April, 2000.

Respectfully submitted,



Steve M. Perry  
Attorney for Applicant  
Registration No. 45,357  
THORPE, NORTH & WESTERN, L.L.P.  
P.O. Box 1219  
Sandy, UT 84091-1219  
Telephone (801) 566-6633

VWN/kj

**RECEIVED**

MAY 04 2000

Group 2700

PATENT APPLICATION  
DOCKET NO. T4855.CIP

*K. Ward*  
*5/5/00*  
*#4/Run*  
*fast*  
*patch*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Joseph O. Norris, et al  
SERIAL NO.: 09/478,114  
FILED: 01/04/2000  
FOR: PIEZOELECTRIC FILM SONIC  
EMITTER  
ART UNIT: 2747  
EXAMINER:  
DOCKET NO.: T4855.CIP

**CERTIFICATE OF DEPOSIT  
UNDER 37 C.F.R. § 1.8**

I hereby certify that this  
correspondence is being deposited  
with the United States Postal  
Service as First Class Mail, postage  
prepaid, under 37 C.F.R. § 1.8 on  
the date indicated below and is  
addressed to Assistant  
Commissioner of Patents,  
Washington, D.C. 20231.

*Karen Jacobson*

*4-28-2000*

Date of Deposit

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97**

Box: DD  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). Applicant respectfully submits that this Information Disclosure Statement is filed pursuant to 37 C.F.R. § 1.97 (b)(1), within three months

Assistant Commissioner for Patents  
April 26, 2000  
Page 2

of the filing date of the application or before the receipt of a first office action and requests that the references cited in the enclosed form PTO-1449 be made of record in the above-captioned application. While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed list of references is disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the references listed, together with any other references which may have been previously submitted or listed, are the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each listed reference (or relevant portion thereof) which was not previously submitted to, or cited by, the Patent Office is also enclosed.

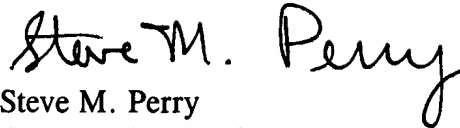
Since all listed references are either in the English language or are accompanied by a translation into English, no concise explanation of relevance is required under 37 C.F.R. § 1.98(a)(3).

Please charge any additional fees or credit any overpayment to Deposit Account No. 20-0100.

Assistant Commissioner for Patents  
April 26, 2000  
Page 3

DATED this 26 day of April, 2000.

Respectfully submitted,

A handwritten signature in black ink that reads "Steve M. Perry". The signature is written in a cursive style with a large, stylized "P" and "y".

Steve M. Perry  
Attorney for Applicant  
Registration No. 45,357

THORPE, NORTH & WESTERN, L.L.P.  
P.O. Box 1219  
Sandy, Utah 84091-1219  
Telephone (801) 566-6633

SMP/kj

## LIST OF PRIOR ART CITED BY APPLICANT

Application Number

09/478,114

Filing Date

01/04/2000

First Named Inventor

Joseph O. Norris

Group Art Unit

2747

Examiner Name

Attorney Docket Number

T4855.CBP

Sheet 1 of 1

RECEIVED

MAY 04 2000

FILING DATE  
IF APPROPRIATE  
Group 2700

## U.S. PATENT DOCUMENTS

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	
	AA	5,357,578	10/18/94	TANIISHI			
	AB	4,593,160	06/03/86	NAKAMURA			
	AC	5,287,331	02/15/94	SHINDEL			
	AD	5,153,859	10/06/92	CHATIGNY			
	AE	4,672,591	06/09/87	BREIMESSER			
	AF	4,558,184	12/10/85	BUSCH-VISHNIAC			
	AG	4,439,642	03/27/84	REYNARD			
	AH	4,429,193	01/31/84	BUSCH-VISHNIAC			
	AI	4,887,246	12/12/89	HOSSACK ET AL			
	AJ	4,888,086	12/19/89	HOSSACK ET AL			
	AK	4,695,986	09/22/87	HOSSACK			
	AL	4,284,921	08/18/81	LEMONON ET AL			
	AM	4,064,375	12/20/77	RUSSELL ET AL			
	AN	5,700,359	12/23/97	BAUER			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

## OTHER PRIOR ART (Including Author, Title, Pertinent Pages, Etc.)

	AO		Aoki, K., et al., "Parametric Loudspeaker --Characteristics of Acoustic Field and Suitable Modulation of Carrier Ultrasound," Electronics and Communications in Japan, Part 3, Vol. 74, No. 9, pp. 76-82 (1991).
	AP		Makarov, S.N., et al., "Parametric Acoustic Nondirectional Radiator," Acustica, Vol. 77, pp. 240-242 (1992).
	AQ		Westervelt, P.J., "Parametric Acoustic Array, "The Journal of the Acoustical Society of America," Vol. 35, No. 4, pp. 535-537 (1963).
	AR		Yoneyama, M., et al., "The Audio Spotlight: An Application of Nonlinear Interaction of Sound Waves to a New Type of Loudspeaker Design," J. Acoust. Soc. Am., Vol. 75, No. 5, pp. 1532-1536 (1983).

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.